

Listing of Claims

This listing of the claims will replace all prior versions, and listings, of claims in this application.

1-2. (Cancelled)

3. (Currently Amended) An isolated nucleic acid molecule selected from the group consisting of

- a) an isolated nucleic acid molecule comprising the nucleotide sequence set forth in SEQ ID NO:5, or a complement thereof;
- b) an isolated nucleic acid molecule which encodes a polypeptide comprising the amino acid sequence set forth in SEQ ID NO:6, or a complement thereof;
- ~~e) an isolated nucleic acid molecule which encodes a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence set forth in SEQ ID NO:6, or a complement thereof;~~
- [[d]]c) an isolated nucleic acid molecule comprising a nucleotide sequence which is at least ~~[[50]]~~90% identical to the entire nucleotide sequence set forth in SEQ ID NO:5, wherein the nucleic acid molecule encodes a polypeptide having a cysQ activity, or a complement thereof; [[and]]
- ~~d)~~ an isolated nucleic acid molecule which encodes a polypeptide comprising an amino acid sequence which is at least 90% identical to the entire amino acid sequence of SEQ ID NO:6, wherein the polypeptide has a cysQ activity, or a complement thereof; and
- e) an isolated nucleic acid molecule comprising a fragment of at least 15 contiguous nucleotides of the nucleotide sequence set forth in SEQ ID NO:5, or a complement thereof.

4-8. (Cancelled)

9. (Previously Presented) An isolated nucleic acid molecule comprising the nucleic acid molecule of claim 3 and a nucleotide sequence encoding a heterologous polypeptide.

10. (Previously Presented) A vector comprising the nucleic acid molecule of claim 3 or 9.

11. **(Original)** The vector of claim 10, which is an expression vector.
12. **(Original)** A host cell transfected with the expression vector of claim 11.
13. **(Original)** The host cell of claim 12, wherein said cell is a microorganism.
14. **(Original)** The host cell of claim 13, wherein said cell belongs to the genus *Corynebacterium* or *Brevibacterium*.
15. **(Original)** The host cell of claim 12, wherein the expression of said nucleic acid molecule results in the modulation in production of a fine chemical from said cell.
16. **(Original)** The host cell of claim 15, wherein said fine chemical is selected from the group consisting of: organic acids, proteinogenic and nonproteinogenic amino acids, purine and pyrimidine bases, nucleosides, nucleotides, lipids, saturated and unsaturated fatty acids, diols, carbohydrates, aromatic compounds, vitamins, cofactors, polyketides, and enzymes.
17. **(Original)** A method of producing a polypeptide comprising culturing the host cell of claim 12 in an appropriate culture medium to, thereby, produce the polypeptide.
- 18-24. **(Cancelled)**
25. **(Withdrawn – Previously Presented)** A method for producing a fine chemical, comprising culturing the cell of claim 12 such that the fine chemical is produced.
26. **(Withdrawn)** The method of claim 25, wherein said method further comprises the step of recovering the fine chemical from said culture.
27. **(Cancelled)**
28. **(Withdrawn)** The method of claim 25, wherein said cell belongs to the genus *Corynebacterium* or *Brevibacterium*.
29. **(Withdrawn)** The method of claim 25, wherein said cell is selected from the group consisting of: *Corynebacterium glutamicum*, *Corynebacterium herculis*, *Corynebacterium lilium*, *Corynebacterium acetoacidophilum*, *Corynebacterium acetoglutamicum*,

Corynebacterium acetophilum, *Corynebacterium ammoniagenes*, *Corynebacterium fujiokense*, *Corynebacterium nitrilophilus*, *Brevibacterium ammoniagenes*, *Brevibacterium butanicum*, *Brevibacterium divaricatum*, *Brevibacterium flavum*, *Brevibacterium healii*, *Brevibacterium ketoglutamicum*, *Brevibacterium ketosoreductum*, *Brevibacterium lactofermentum*, *Brevibacterium linens*, *Brevibacterium paraffinolyticum*, and those strains set forth in Table 3.

30. **(Withdrawn)** The method of claim 25, wherein expression of the nucleic acid molecule from said vector results in modulation of production of said fine chemical.
31. **(Withdrawn)** The method of claim 25, wherein said fine chemical is selected from the group consisting of: organic acids, proteinogenic and nonproteinogenic amino acids, purine and pyrimidine bases, nucleosides, nucleotides, lipids, saturated and unsaturated fatty acids, diols, carbohydrates, aromatic compounds, vitamins, cofactors, polyketides, and enzymes.
32. **(Withdrawn)** The method of claim 25, wherein said fine chemical is an amino acid.
33. **(Withdrawn)** The method of claim 32, wherein said amino acid is drawn from the group consisting of: lysine, glutamate, glutamine, alanine, aspartate, glycine, serine, threonine, methionine, cysteine, valine, leucine, isoleucine, arginine, proline, histidine, tyrosine, phenylalanine, and tryptophan.
34. **(Withdrawn – Currently Amended)** A method for producing a fine chemical, comprising culturing a cell whose genomic DNA has been altered by the inclusion of a nucleic acid molecule of claim 3 or 9.
35. **(Withdrawn – Previously Presented)** A method for diagnosing the presence or activity of *Corynebacterium diphtheriae* in a subject, comprising detecting the presence of a nucleic acid molecule of claim 3, thereby diagnosing the presence or activity of *Corynebacterium diphtheriae* in the subject.
36. **(Previously Presented)** A host cell comprising a nucleic acid molecule comprising the nucleotide sequence set forth in SEQ ID NO:5, wherein the nucleic acid molecule is disrupted.

37. **(Currently Amended)** A host cell comprising a nucleic acid molecule comprising the nucleotide sequence set forth in SEQ ID NO:5, wherein the nucleic acid molecule comprises one or more nucleic acid modifications as compared to the nucleotide sequence as set forth in SEQ ID NO:5, wherein the nucleic acid molecule encodes a polypeptide having a cysQ activity.
38. **(Previously Presented)** A host cell comprising a nucleic acid molecule comprising the nucleotide sequence set forth in SEQ ID NO:5, wherein the regulatory region of the nucleic acid molecule is modified relative to the wild-type regulatory region of the molecule.
39. **(New)** The nucleic acid molecule of claim 3(c), wherein the nucleotide sequence has at least 95% identity to the entire nucleotide sequence of SEQ ID NO:5.
40. **(New)** The nucleic acid molecule of claim 3(d) wherein the polypeptide comprises an amino acid sequence which is at least 95% identical to the entire amino acid sequence of SEQ ID NO:6.